

REMARKS/ARGUMENTS

This application has been carefully considered in light of the Initial Office Action of April 1, 2003. As a result, an amendment has been made to correct errors in the Abstract of Disclosure and the specification as referenced by the Examiner in the Initial Office Action.

In view of the amendments being made to the Abstract of the disclosure and to the specification, reconsideration of the Examiner's rejections and objections to the specification is respectfully solicited.

Claim 1 has been rejected under 35 U.S.C. 112, first paragraph, as containing subject matter not described in the specification. In this respect, it is believed that the amendment to the specification and to the claim language overcomes this grounds for rejection.

The Examiner specifically questioned the use of the term of a "pressuretight material plug". Throughout the present application, it is stated that the cellulose material is compressed by the screw between the periphery of the screw shaft and the interior wall of the housing so as to form a dense plug which plug is urged toward the opening formed by the adjustable

throttle which, in the preferred embodiment shown, is created by the flange 22 in relationship to the plug pipe 24.

In the present specification in the paragraph beginning following the Figure descriptions, it is noted that in order to prevent a decrease or loss of pressure of steam within the housing, it is necessary to insure that the pulp material is fed out in a manner which preserves a pressure tight atmosphere within the housing. In this respect, the compression of the cellulose material between the screw and the interior of the housing causes the material to be densely formed and creates a plug which prohibits loss of steam pressure through the outlet opening 28 through which the plug passes as it exits from the screw housing. If the cellulose material is not compressed to form the plug, there is sufficient porosity to allow steam to escape through the outlet opening 28 from the screw chamber.

Claims 1 through 6 and claim 8 have been rejected under 35 U.S.C. 103(a) as being obvious and therefore unpatentable over US Patent 4,838,995 to Klausen when considered in view of US 4,249,703 to Korenev et al. For the reasons discussed below, reconsideration of this grounds for rejection is respectfully solicited.

The Examiner has indicated that claim 7 is only objected to as being dependent from a rejected base claim but would be

allowable if rewritten in independent form to include the limitation of the base claim and intervening claims.

The reference to Klausen has been considered but is not believed to teach the inventive aspects of the present invention as set forth in the claims. More specifically, Klausen discloses a screw conveyor mounted within a housing which is specifically designed to be porous in order that moisture can be compressed from material being conveyed therethrough. The housing and conveyor actually form a de-watering apparatus wherein there is no specific structure provided for maintaining a build-up of steam pressure within the housing. Therefore, the reference to Klausen does not suggest a housing forming a screw chamber wherein a discharge end of the chamber must be sealed by the material moving therethrough by forming the material into a dense plug which becomes pressure tight at the outlet opening, which is the case with the present invention. In the cited reference, there would be no desire to seal one end of the housing through which the material flows because the housing is designed to permit moisture to be removed therefrom and there is no suggestion providing a housing to maintain an internal pressure, which is the case with the present invention.

In view of the foregoing it is respectfully submitted that the reference to Klausen does not provide a sufficient nexus to

the present invention to establish a rejection for obviousness based on a combination of elements as suggested in the Initial Office Action. One of ordinary skill in the art would not look to the reference to Klausen to develop a throttling structure for a screw and housing combination such that a plug of material is densely created at an outlet opening of the housing, as is taught by the present application.

Concerning the adjustable gap device disclosed in the reference to Korenev, it should be noted that the moveable nozzle shown at 8 in the drawing figures and discussed at column 7 beginning at line 20 of the patent, is provided for purposes of altering the residence time of the starting material within the work zone of the chamber. There is no discussion of providing an adjustable throttle for creating a plug of material so that the material is essentially pressure tight so as to effectively seal an outlet opening in a conveyor chamber, as is taught in the present invention.

In view of the foregoing, one of ordinary skill would not be led to modify the primary reference by providing an adjustable member as disclosed in Korenev et al. for purposes of altering a residence time of a material within the conveyor housing in the reference to Klausen. Further, even if the combination were made, it would not teach the elements of applicants invention for

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creating a pressure tight material plug at an opening in a housing containing a screw conveyor as is expressly taught and claimed in this application.

In view of the foregoing, reconsideration of the ground for rejection under 35 U.S.C. 103(a) is respectfully requested and favorable reconsideration and allowance of claims 1 through 12 is requested.

An earnest effort has been made to place this application in condition for allowance. If the Examiner has any questions concerning the amendments submitted herewith or the allowability of the claims with respect to the prior art, it would be appreciated if the Examiner would contact the undersigned attorney of record at the telephone number shown below for purposes of scheduling an interview in order to further facilitate the prosecution of the application.

Respectfully submitted,

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By 

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